DOCUMENT RESUME

ED 381 412 SO 024 236

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TITLE Effective School-Based Substance Abuse Prevention Programs.
PUB DATE Nov 93
NOTE 11p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (New Orleans, LA, November 11, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Elementary Secondary Education; *Health Education; *Prevention; Program Content; *Program Effectiveness; School Based Management; Special Programs; *Substance Abuse

ABSTRACT

Substance abuse among school age youth continues to be a significant and costly problem in U.S. society. Schools are asked with increasing frequency to become involved in finding and implementing solutions. A review of the literature regarding school-based substance abuse prevention programs reveals their evolution from a basic informational approach in the 1960s to approaches in the 1990s that are designed to help youth develop effective coping skills. The latter approaches are based on the assumption that substance abuse is learned socially. Empirical evidence reveals that current approaches are more effective than earlier ones were in preventing substance abuse among youth. School district personnel need to become aware of the nature of the more successful substance abuse prevention programs and build the designs for their programs on the characteristics of these programs. This paper contributes to that awareness by summarizing the most significant characteristics of effective programs as currently described in the relevant literature. After reviewing the characteristics of particularly effective school-based substance abuse programs, the literature concludes that a broad and coordinated prevention approach is needed. Substance abuse prevention programs that involve schools working with civic organizations and institutions, law enforcement officials, parents, peers, and even the media may have a greater impact than programs implemented only in the schools. Contains a 17-item reference list. (Author/DK)

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EFFECTIVE SCHOOL-BASED SUBSTANCE ABUSE PREVENTION PROGRAMS

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Paper presented at the annual meeting of the Mid-South Educational Research Association on November 11, 1993 at New Orleans, Louisiana.

Abstract

Substance abuse among school-age youth continues to be a significant and costly problem in U.S. society. Schools are asked with increasing frequency to become involved in finding and implementing solutions. A review of the literature regarding school-based substance abuse prevention programs reveals their evolution from a basic informational approach in the 1960s to approaches in the 1990s that are designed to help youth develop effective coping skills. The latter approaches are based on the assumption that substance abuse is socially learned. Empirical evidence reveals that current approaches are more effective than earlier ones were in preventing substance abuse among the youth of our nation. School district personnel, therefore, need to become aware of the nature of the more successful substance abuse prevention programs and build the designs for their programs on the characteristics of these programs. This presentation will contribute to that awareness by summarizing the most significant characteristics of effective programs as currently described in the relevant literature.

EFFECTIVE SCHOOL-BASED SUBSTANCE ABUSE PREVENTION PROGRAMS

The problem of substance abuse among school-aged children is not a new one, nor is the concept of school-based prevention programs. Due to the fact that the school system has access to the majority of children, school-based prevention programs have the potential to be effective. Such programs are critically needed in our nation's schools because American adolescents use more drugs than youths in any other industrialized nation (Forman & Neal, 1987).

Although surveys indicate that drug use among some groups of youths has declined (Connell, 1993; Dembo, Williams, & Schmeidler, 1992), substance abuse continues to be a problem. According to the 1992 annual survey on drug abuse, released this year by Federal health officials, 6% of 12 to 17 year olds used illegal drugs (Connell). This report is consistent with the results of other studies. Novacek, Raskin, and Hogan (1991) found that a significant number of middle school children in their sample used drugs regularly. Among a national sample surveyed by the Centers for Disease Control (1992), 27% of high school students engaged in episodic heavy drinking, 12% smoked and 11% used smokeless tobacco frequently, 11% used marijuana within the month preceding the survey, and 5% had used cocaine at least once. Younger children, however, tend to use household products such as glue, turpentine, spray paint, freon, and other chemical-based products that are more readily available than the drugs used by high school students. Unfortunately, the abuse of household products appears to be increasing (O'Connor & Britton, 1987).

Given these and similar statistics not reported herein, prevention programs are critical during both elementary and secondary school years in order to reduce the incidence of substance abuse among adolescents. This paper, therefore, is written to provide information regarding effective school-based prevention programs.

Evolution of School-Based Programs

School-based programs have been around since the 1960s (Forman & Neal, 1987) and have developed and changed considerably since then. Programs in the late 1960s emphasized the use of factual information about the effects of substances and often employed scare tactics. Sharing of neutral, scientific-objective information soon replaced the scare tactics. These approaches were found to be ineffective, and information-only programs may even have increased adolescents' use of substances (Barnea, 1987; Forman & Neal; Newcomb & Bentler, 1989;).

In the early and mid 1970s, affective education programs were initiated. These programs focused on identifying the underlying reasons for substance abuse by youths and enhancing their self-esteem and self-awareness (Forman &

Neal, 1987). Other objectives of these programs were to help youths with clarifying values and learning effective decision-making skills (Barnea, 1989). These programs, like the earlier information-based ones, generally were found to be ineffective.

Current prevention programs combine both the informational approaches and the affective approaches (Newcomb & Bentler, 1989). These programs are aimed at developing personal and social coping skills and are based on social learning theory (Bandura, 1977) and problem behavior theory (Jessor & Jessor, 1977), both of which view substance abuse as socially learned behavior (Forman & Neal, 1987). Recent programs that focus on teaching personal and social coping skills have been found to be effective; the generalizability of these findings, however, is somewhat limited by the fact that most of the programs were developed to prevent cigarette smoking (Forman & Neal). Forman and Neal, nevertheless, argue that such coping skills programs provide evidence of effectiveness in the prevention of alcohol and drug abuse as well as smoking.

Coping Skills Programs

The coping-skills programs are of two types--those that are narrow in focus and those that are broad. The narrow-focus programs emphasize the impact of specific social influences in youth's decisions to use substances. For example, "Saying No" programs are designed to teach children specific skills to deal with peer pressure. The broad-spectrum programs emphasize the development of a wide range of skills (including decision-making, problem-solving, and social pressure resistance) to deal with the multiplicity of factors which may influence substance use (Forman & Neal, 1987).

Narrow-Focus Programs

The objective of narrow-focus programs is to build skills that can be used by adolescents as they deal with social pressures to begin substance use. In addition to the "Saying No" programs which have achieved high popularity, several other examples of social influence programs were described by Forman and Neal (1987). Two have been selected for brief mention in this paper. The following descriptions are summaries of details that Forman and Neal reported.

The Waterloo Smoking Prevention Program had three components. The first component consisted of information about the consequences of smoking and the reasons given for choosing to smoke. The objective of the second component was to teach coping skills for resisting social pressures to smoke. In the third component, participants were taught decision-making skills and were encouraged to make a public commitment not to smoke. An evaluation of this program showed a decrease in the onset of smoking and an increase in the number of smokers who quit.

The Robbinsdale Anti-Smoking Project included information about peer, family, and advertising influences as well as the immediate physiological

consequences of smoking. Participants were taught resistance skills and were encouraged to make public commitments not to smoke. This program was found to be effective in reducing the prevalence of smoking.

A third example of narrow-focus programs is one reported by Horan and Williams (1982). This program used assertion training as a drug- and alcohol-abuse prevention strategy for nonassertive students. Participants in the experimental group were exposed to stimulus situations involving peer pressure to use drugs, whereas other participants were exposed to placebo discussions or no treatment at all. Results of the study showed both psychometric and behavioral gains in assertiveness among participants in the experimental group. These participants reported less willingness to use marijuana and alcohol than participants in either of the other groups. A three-year follow-up study showed that those who were in the training group continued to display higher levels of assertiveness and reported less drug use.

All three of the narrow-focus programs described above are supported by evidence of effectiveness in preventing adolescent substance use. Although two of the programs were designed only to prevent cigarette smoking, the skills that were emphasized are useful in resisting social pressures related to all types of substance use.

Broad-Spectrum Programs

The objective of broad-spectrum programs is to build a wide range of general purpose decision-making and problem-solving skills that go beyond the ability to deal with social pressures to begin substance use. Two examples of these programs, specifically Cognitive Behavioral Skills Training and Life Skills Training were described by Forman and Neal (1987). The following descriptions are summaries of the details that Forman and Neal reported.

Cognitive Behavioral Skills Training typically consists of eight one-hour sessions that are designed to develop personal and social coping strategies and specific techniques that can be used in pressure situations. The content of this program includes health-related information, decision-making and problem-solving skills training, self-instructional techniques, and assertive communication skills. Results of several studies indicate that this program is effective in smoking prevention; influences knowledge and attitudes toward smoking in positive directions; and improves problem-solving, decision-making, and assertiveness skills.

Life Skills Training, used to prevent drug and alcohol use as well as to prevent smoking, typically consists of ten weekly sessions that are designed to provide substance abuse knowledge, develop general life skills, and improve self-esteem. The content of Life Skills Training includes information about the prevalence and consequences of use, risks of dependency, and principles of behavioral self-management. It also provides experiences in the use of critical thinking skills, cognitive and behavioral techniques such as imagery and relaxation, social and communication skills, and assertiveness training.

Life Skills Training has empirical evidence for its effectiveness in the prevention of alcohol and marijuana use as well as cigarette smoking (Forman and Neal, 1987).

Broad-spectrum programs like Cognitive Behavioral Skills Training and Life Skills Training are designed to go beyond teaching basic resistance to peer pressure and emphasize the development of more general life skills that can be applied in a wide variety of situations. As such, they may be expected to have a general positive impact on participants beyond the prevention of substance use and/or abuse. Although current school-based substance abuse prevention programs are identified by many different names, those that are best supported by empirical evidence as being effective are classifiable as broad-spectrum programs, similar to Cognitive Behavioral Skills Training and Life Skills Training. In a later section of this paper, references will be made to some of these programs by their specific names.

Developing a Program

The greater effectiveness of broad-spectrum programs, as compared to narrow-focus programs and their predecessors, suggests that a comprehensive approach to substance abuse prevention is preferable. A format for developing such an approach was reported by Fox, Forbing, and Anderson (1988). They advocated a comprehensive, research-based approach including five interacting phases in a dynamic and cyclical process for use with students in kindergarten through twelfth grade. The five phases to be completed are needs assessment, program planning, program implementation, program evaluation, and program dissemination. Fox, Forbing, and Anderson suggested that a team of school personnel and community representatives be formed to ensure coordination of school and community activities.

Determining the nature of the need for prevention is the first step in designing a substance abuse prevention program (Sullivan, Guglielmo, & Polak, 1987). Sullivan, Guglielmo, and Polak described a diagnostic-prescriptive process for assessing the needs of individual students. During the needs assessment phase, surveys and interviews are used to assess the nature and scope of substance use problems in the particular school and community. Data that should be included in a needs assessment are rates of school absences, dropouts, and disciplinary infractions; drug-related accidents and hospital admissions; and arrests for drug-related activities. These data provide sources for problem statements, which can be ranked in order of importance to the school and the community (Fox, Forbing, and Anderson, 1988).

Priority ranking of problem statements provides the foundation for choosing both short- and long-term goals in the program planning phase. Once goals are established, program planners need to become familiar with current models of program delivery (Sullivan, Guglielmo, & Polak, 1987). Armed with

this information, planners are prepared to identify program objectives that will lead toward achievement of the already-established goals. Objectives tell the who, what, when, where, and how of program operations.

Once objectives have been established, program implementation activities begin. The nature of these activities should vary depending on the identified needs, but some effort should be made on behalf of all students (Sullivan, Guglielmo, & Polak, 1987). Sullivan, Guglielmo, and Polak's diagnostic-prescriptive process provides a framework for involving all students in the most needed activities. Fox, Forbing, and Anderson (1988) provided considerable information about this third phase which should involve school personnel and parents as well as students. The substance abuse prevention curriculum for students should include various activities from the cognitive, affective, and behavioral domains. It should be presented in a cyclical fashion so that depth and breadth increase with age and developmental level. School-based activities should be integrated with those in the community (Fox, Forbing, & Anderson).

In order to know whether goals have been achieved, short- and long-term evaluation procedures that measure target variables before and after program implementation are required (Barnea, 1987). Fox, Forbing, and Anderson (1988) advocated that both formative and summative evaluations should be included in this fourth phase of their comprehensive approach to prevention of substance abuse. Formative evaluations provide ongoing feedback and allow for continual refinement of the program as it progresses. Summative evaluations, including pre- and post-testing and follow-up studies, provide evidence of effectiveness and the basis for significant program modifications that may be needed.

The fifth and final phase, dissemination, involves sharing information about the program. Fox, Forbing, and Anderson (1988) suggested that the local media can help with this phase. Sharing information with a broader audience is also important, whether outcomes are positive or not, so that others who plan substance abuse prevention programs can have a broader information base from which to draw their plans.

Characteristics of Effective Programs

The most critical characteristics of effective programs for prevention of substance abuse have already been described: (1) Effective programs are comprehensive in nature, including the development of a broad array of skills as well as informational content. (2) Effective programs are developed from a research-based format that builds from needs assessment to program evaluation and dissemination in an interactive fashion.

Current literature provides little basis for judging the relative merits of specific program qualities. Programs that have been supported by empirical evidence of effectiveness vary a great deal as to the target, forum, format,

and leadership of program activities. These qualities of some programs are described below to allow the reader to see how truly varied effective programs can be.

Target

Although some programs have been designed to include a single target group, most effective programs actually have multiple targets. When programs have been targeted toward a specific age group, that group has most often been students of late elementary or early junior high school age (Forman & Neal, 1987). Sullivan, Guglielmo, and Polak (1987) stated that some prevention efforts should be made on behalf of all students. Fox, Forbing, and Anderson (1988) agreed and advocated that programs be developed with activities for students in kindergarten through twelfth grade. In addition, some aspects of some programs may be targeted toward groups other than students. For example, Project Impact includes activities to educate teachers, administrators, and community leaders about local substance abuse issues and ways of responding to signs of substance abuse (Caudill, Kantor, & Ungerleider, 1990). Parents also can be targeted with activities to improve their communication skills and constructive discipline practices relevant to the individual developmental levels of their children (Fox, Forbing, & Anderson).

Format

Sharing of information about substances and their effects continues to be a central, but not sufficient, element of most substance abuse prevention programs. A wide array of other activities are typical. Although lecture has a place in substance abuse prevention programs, it should be only a small portion of a multimodal instructional approach. A multimodal approach also will include discussion, modeling, role playing, feedback, and rehearsal (Forman & Neal, 1987).

Programs vary in the number and duration of sessions that are scheduled for substance abuse prevention activities and in the size of groups that are targeted. Some programs have as few as four sessions, whereas others have as many as sixteen or more; the more effective ones, however, typically include booster sessions at intervals of a few months to a year or more over a period of several years (Forman & Neal, 1987). Activities are conducted with single individuals, small groups, classroom groups, and large assemblies (Sullivan, Guglielmo, & Polak, 1987).

Activities other than those typically included in multimodal instruction also have been central aspects of some of the effective programs. For example, Blotner and Levander (1986) described collaboration with local law enforcement officials as part of the School Program to Educate and Control Drug Abuse (SPECDA). SPECDA activities included visits to police facilities, law-related education classes, police-student rap groups, and other efforts to create interaction between students and police officers who often had grown up in the neighborhoods where the programs were operating. Layne and Grossnickle

(1989) described Operation Snowball, an example of a program that utilized a "grassroots" approach. A unique feature of Operation Snowball was weekend retreat designed to develop a positive peer culture that emphasized building healthy peer relationships as an alternative to escaping personal difficulties by "getting high." One other example of alternative activities was reported by Flynn, Worden, Secker-Walker, Badger, Geller, and Costanza (1992) who described the use of radio and television spots to influence young people toward a more positive view of nonsmoking and a more negative view of smoking.

Leadership

Successful programs vary in the nature of their leadership. Some of these programs operate with adult leaders, whereas others are led by peers. Still others operate with some combination of adult and peer leaders. No research has demonstrated that adult-led programs are more effective than those led by peers, or vice versa. Some adult leaders are internal to the school; these include counselors, teachers, and administrators. Other adult leaders are external to the school; these include psychologists, counselors, social workers, police officers, celebrities, and others from the larger community. SPECDA, for example, utilized law enforcement officers as a primary resource (Blotner & Levander, 1986). Operation Snowball was staffed by a combination of adults from the school and the community, but many of the activities were actually led by a team of students (Layne & Grossnickle, 1989).

Conclusion

As long as the youth of our nation continue to use drugs, substance abuse prevention programs are here to stay. We have no reason to expect that the public will suddenly decide that dealing with substance abuse by children and adolescents is a problem to be resolved by their families and communities without schools being involved. School-based programs, therefore, must be reviewed and revised constantly in order to include empirically-supported characteristics. Based on the review presented herein, however, we agree with Barnea (1989) that a broad and coordinated prevention approach is needed. Substance abuse prevention programs that involve schools working with civic organizations and institutions, law enforcement officials, parents, peers, and even the media may have a greater impact than programs implemented only in the schools.

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